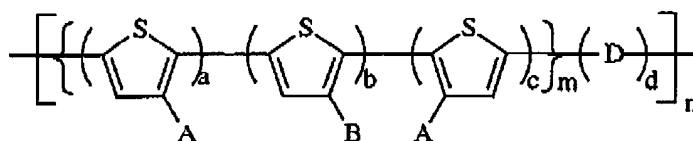


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AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings of claims in the application:

1. **(Currently Amended)** A symmetrical polythiophene



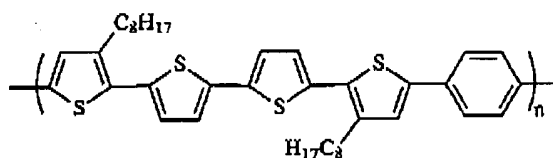
(III)

wherein A is a side chain; B is hydrogen or a side chain; D is a divalent linkage; a and c represent the number of A-substituted thiophenes; b is the number of B-substituted thiophene segments; d is 0 or 1; and n represents the degree of polymerization, and wherein A is alkyl, and said B side chain is alkyl.

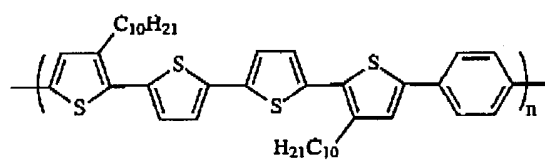
2. **(Canceled)**

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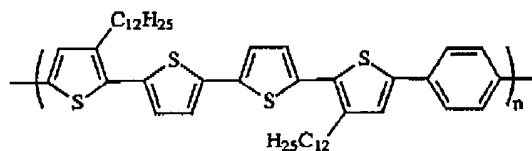
3. (Original) A polythiophene represented by



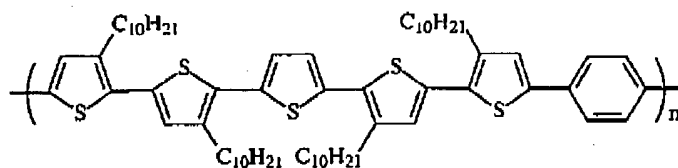
(1)



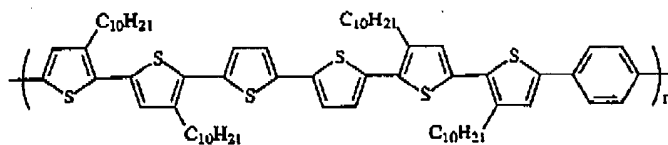
(2)



(3)

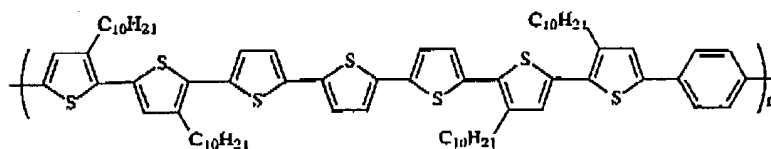


(4)

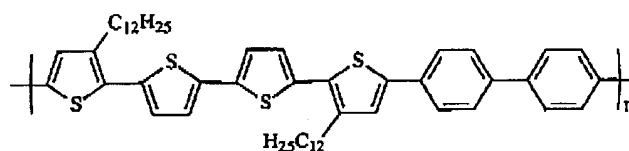


(5)

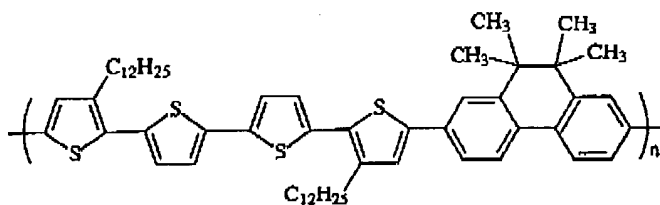
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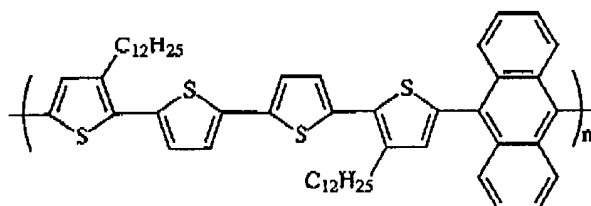
(6)



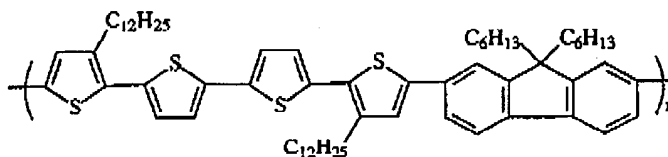
(7)



(8)

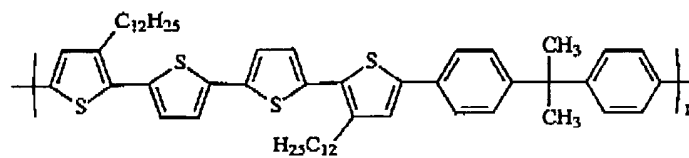
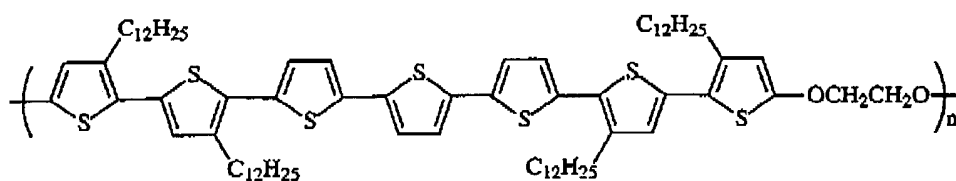
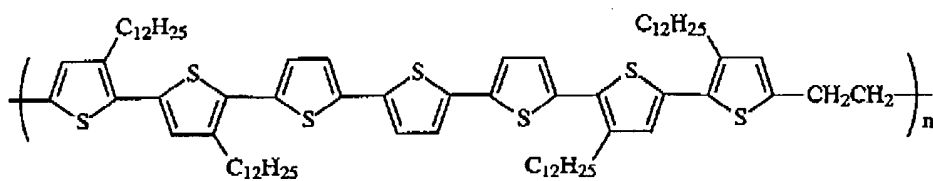
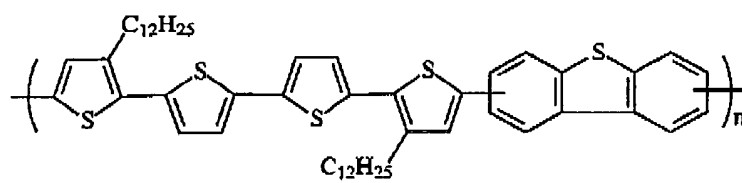
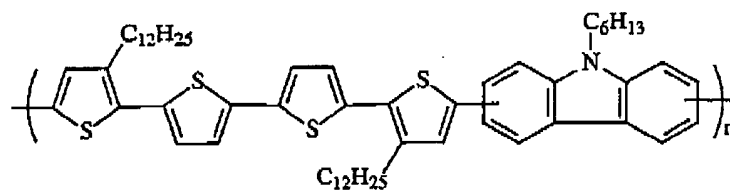


(9)

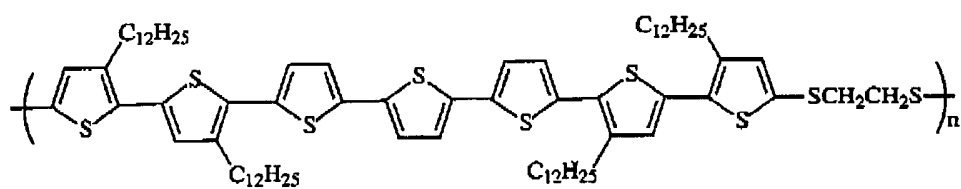


(10)

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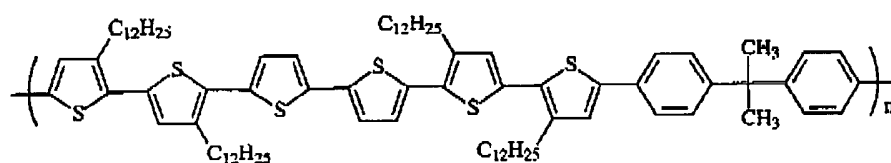


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(16)

or

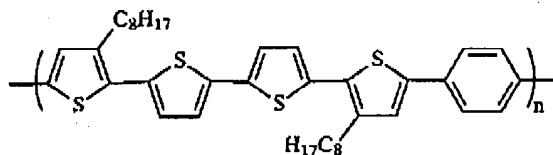


(17)

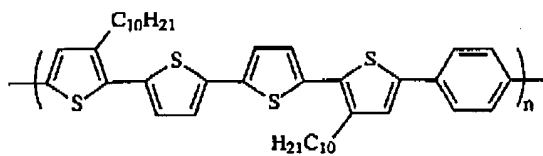
and wherein n represents the number of segments.

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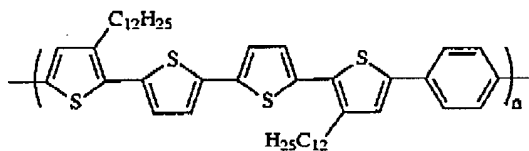
4. **(Original)** A polythiophene in accordance with **claim 1** wherein said polythiophene is represented by the following formulas



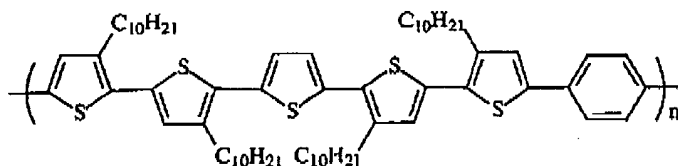
(1)



(2)



(3)



(4)

5. **(Canceled)**

6. **(Original)** A polythiophene in accordance with **claim 1** wherein A is alkyl containing from about 1 to about 25 carbon atoms, and B is alkyl containing from 0 to about 4 carbon atoms.

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7. **(Original)** A polythiophene in accordance with **claim 6** wherein A contains from about 5 to about 25 carbon atoms, and B contains from 0 to about 4 carbon atoms.

8. **(Original)** A polythiophene in accordance with **claim 1** wherein a is from about 1 to about 7.

9. **(Original)** A polythiophene in accordance with **claim 1** wherein b is from about 1 to about 7.

10. **(Original)** A polythiophene in accordance with **claim 1** wherein d is zero.

11. **(Original)** A polythiophene in accordance with **claim 1** wherein d is 1.

12. **(Original)** A polythiophene in accordance with **claim 1** wherein n is from about 5 to about 5,000.

13. **(Original)** A polythiophene in accordance with **claim 1** wherein n is from about 5 to about 3,000.

14. **(Original)** A polythiophene in accordance with **claim 1** wherein n is from about 10 to about 1,000.

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15. **(Original)** A polythiophene in accordance with **claim 1** wherein A is alkyl containing from about 6 to about 25 carbon atoms; B is hydrogen or alkyl containing from 1 to about 3 carbon atoms; D is arylene or dioxyarene, each containing from about 6 to about 40 carbon atoms, or alkylene or dioxyalkane, each containing from about 1 to about 20 carbon atoms.

16. **(Original)** A polythiophene in accordance with **claim 1** wherein A is alkyl containing from about 8 to about 12 carbon atoms, and B is a hydrogen atom.

17. **(Original)** A polythiophene in accordance with **claim 1** wherein A is alkyl containing from 5 to about 15 carbon atoms; B is a hydrogen atom; D is arylene; a, b, c, and m are independently selected from the numbers 1, 2, and 3; and $d = 1$.

18. **(Original)** A polythiophene in accordance with **claim 1** wherein A is alkyl containing from about 8 to about 12 carbon atoms; B is a hydrogen atom; D is arylene; $a = c = m = 1$; $b = 2$; and $d = 1$.

19. **(Original)** A polythiophene in accordance with **claim 1** wherein n is from about 5 to about 5,000.

20. **(Original)** A polythiophene in accordance with **claim 1** wherein the number average molecular weight (M_n) of (III) is from about 10,000 to about 30,000, and the weight average molecular weight (M_w) is from about 15,000 to about 100,000.

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21. **(Original)** A polythiophene in accordance with **claim 1** wherein the number average molecular weight (M_n) of (III) is from about 2,000 to about 100,000, and wherein the weight average molecular weight (M_w) is from about 4,000 to about 500,000, each as measured by gel permeation chromatography using polystyrene standards.

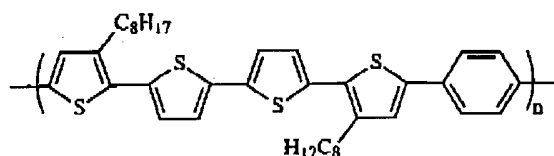
22. **(Original)** A polythiophene in accordance with **claim 1** wherein A is hexyl heptyl, octyl, nonyl, decyl, undecyl, dodecyl, tridecyl, tetradecyl, or pentyldecyl.

23. **(Original)** A polythiophene in accordance with **claim 1** wherein D is an arylene selected from the group consisting of phenylene, tolylene, xylylene, biphenylene, substituted biphenylene, fluorenylene, phenanthrenylene, dihydrophenanthrenylene, dibenzofuranediyl, dibenzothiophenediyl, and carbazole-diyl.

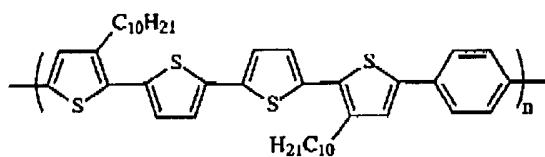
24. **(Original)** A polythiophene in accordance with **claim 1** wherein D is saturated linkage selected from the group consisting of alkylene, dioxyalkane, dioxyarene, and oligoethylene oxide.

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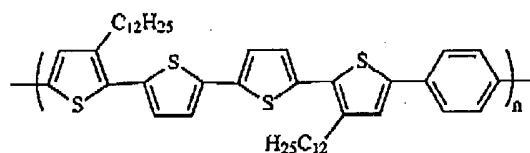
25. (Original) A polythiophene in accordance with claim 1 wherein said polythiophene is represented by or encompassed by the following formulas, and wherein n represents the number of repeating segments, and is a number of from about 5 to about 4,000



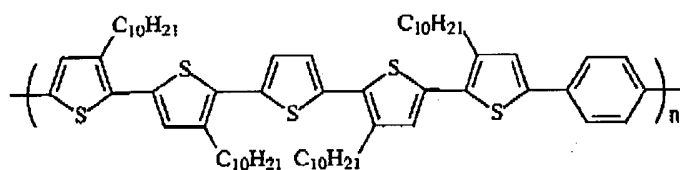
(1)



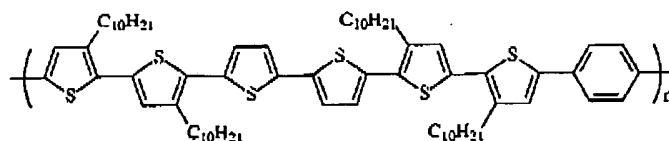
(2)



(3)

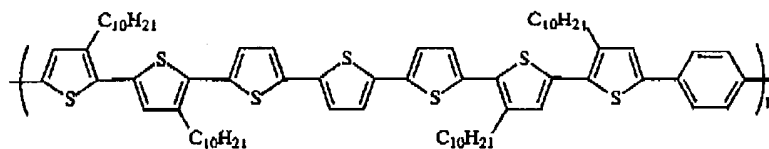


(4)

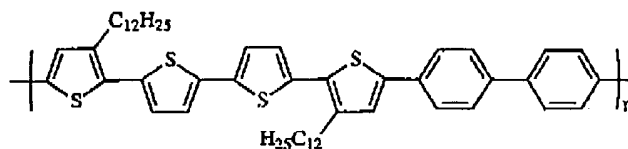


(5)

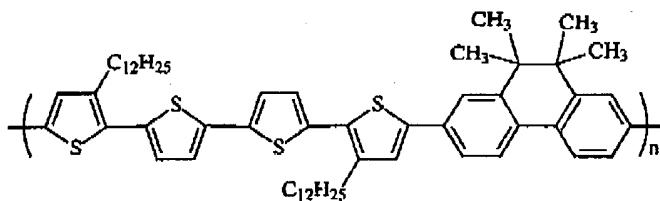
Application No. 10/042,360



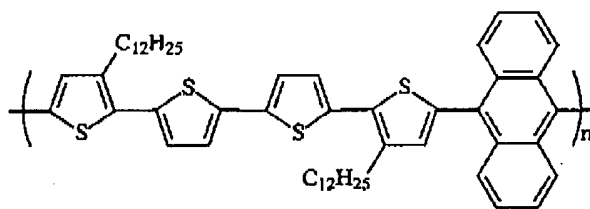
(6)



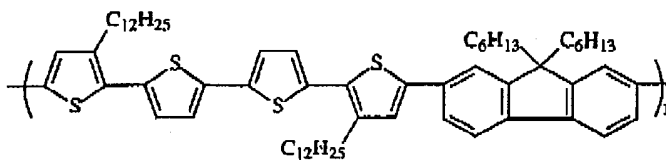
(7)



(8)



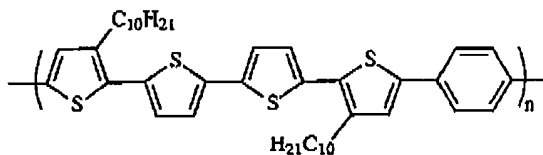
(9)



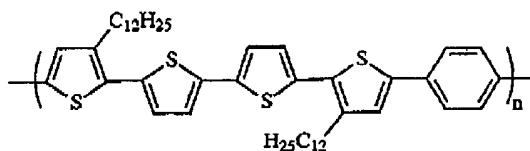
(10)

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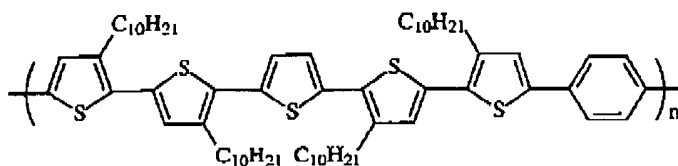
26. **(Original)** A polythiophene in accordance with **claim 1** wherein said polythiophene is



(2)



(3)



(4)

27. **(Canceled)**

28. **(Canceled)**